REMARKS

Claims 1-3, 5-21, 23-31, 36-40, and 41-43 are pending in this application. Claims 15-21 and 23-27 are allowed. Claim 1-3, 5-10, 28-31 and 36-40 are rejected and claims 11-14 are objected to. The independent claims are 1, 9, 15, 19, 28 and 36. This Amendment amends claims 1, 9, 28, and 36, adds claims 41-43, and addresses each point of rejection raised by the examiner. Favorable reconsideration is respectfully requested.

Objections

Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicants appreciate the indication that claims 11-14 would be allowed if rewritten in independent form, but respectfully submit that a broader scope of the invention is patentable in view of the art of record. Applicants request that the rewriting of claims 11-14 be held in abeyance until the Examiner has had the opportunity to reconsider the allowability of amended parent claim 9.

Claim rejected under 35 U.S.C. § 102 in view of Shirasaki

Claims 1-3, 5-7, 9, 28-31 and 36-40 are rejected under 35 U.S.C.§102(e) as being anticipated by U.S. Patent 5,895,692 to Shirasaki *et al.* ("Shirasaki").

The Examiner states that to at least some extent, the same phenomenon of diffusion must have occurred in the case of Shirasaki.

Not every solvent will induce diffusion. But in any case, to distinguish the asserted incidental diffusion that might occur in Shirasaki prior to heating, Applicants have amended independent claims 1, 28, and 36 to describe "dyeing" an organic material with dopant, using solvent to cause the dopant to migrate/diffuse into the organic material. The term "dyeing" as used in the present specification (e.g., see page 8) requires significant interaction between the dye and the film, distinguishing over the asserted incidental diffusion that occurs "at least to some extent" in Shirasaki (if any in fact occurs) prior to heating. Reconsideration is requested.

Further, independent claim 36 is amended to describe that the solvent causes the dopant to dye the organic layer through to an underside of the organic layer. Incidental diffusion at the surface in Shirasaki does not suggest using solvent to dye through a width of the layer.

Similar limitations describing that the solvent dyes the organic materials through a width of the material are added in dependent claims 42 and 44, which depend from claims 1 and 28, respectively.

Claim rejected under 35 U.S.C. § 102 in view of Antoniadis

Claims 1, 6, 9-10, and 28-29 are rejected under 35 U.S.C.§102(b) as being anticipated by U.S. Patent No. 5,719,467 to Antoniadis *et al.* ("Antoniadis").

Applicants disagree with the Examiner's statement "Each component of a mixture is necessarily a dopant in the mixture," which is inconsistent with general understanding in the art and the ordinary meaning of "dopant."

With regard to independent claims 1 and 28, Applicants respectfully submit that Antoniadis does not disclose dyeing an organic host material in the manner claimed. The passages cited by the Examiner describe modification of a conducting polymer layer. There is nothing to suggest that there would be any motivation to dye the conducting polymer layer.

Further, with regard to claim 9, Applicants have amended claim 9 to recite that "a luminescence spectra of the organic coating having the dopant is different from a luminescence spectra of the areas of the coating from which the dopant is removed." As noted above, the layer cited by the Examiner in Antoniadis is a conducting polymer layer, which is not described as having any luminescent properties.

Reconsideration and withdrawal of the § 102 rejections based upon Antoniadis are requested.

Claim rejected under 35 U.S.C. § 103 based on Shirasaki & Tamano

Claim 8 is rejected under 35 U.S.C.§103(a) as being unpatentable over Shirasaki as applied to claim 7 and in further view of U.S. Patent No. 6,150,042 to Tamano *et al.* ("Tamano"). Applicants respectfully submit that the teachings of Tamano do not address the deficiencies of Shirasaki, discussed above.

Claims rejected under 35 U.S.C. § 103 based on Shirasaki & Yuh

Claims 37-40 are rejected under 35 U.S.C.§103(a) as being unpatentable over Shirasaki as applied in claim 1 and in further view of U.S. Patent No. 5,521,047 to Yuh *et al.* ("Yuh").

Applicants respectfully submit that the teachings of Yuh do not address the deficiencies of Shirasaki, discussed above.

Claims rejected under 35 U.S.C. § 103 based on Antoniadis & Yamazaki

Claims 2, 3, 5 and 30-31 are rejected under 35 U.S.C.§103(a) as being unpatentable over Antoniadis as applied to claims 1 and 28 and in further view of U.S. Patent No. 5,538,548 to Yamazaki ("Yamazaki"). Applicants respectfully submit that the teachings of Yamazaki do not address the deficiencies of Antoniadis, discussed above.

Claims rejected under 35 U.S.C. § 103 based on Antoniadis & Honjo

Claims 37 and 39 are rejected under 35 U.S.C.§103(a) as being unpatentable over Antoniadis as applied to claim 1, in further view of U.S. Patent No. 4,218,362 to Honjo *et al.* ("Honjo"). Applicants respectfully submit that the teachings of Honjo do not address the deficiencies of Antoniadis, discussed above.

Claims rejected under 35 U.S.C. § 103 based on Shirasaki & Chang

Claims 5 and 36 are rejected under 35 U.S.C.§103(a) as being unpatentable over Shirasaki in view of Chang *et al.*, Appl. Phys. Lett., Vol. 73, No. 18, 2 November 1998, *pp. 2561-2563* ("Chang"). Applicants respectfully submit that the teachings of Chang do not address the deficiencies of Shirasaki discussed above.

Claims rejected under 35 U.S.C. § 103 based on Shirasaki, Chang, & Tamano

Claim 8 is rejected under 35 U.S.C.§103(a) as being unpatentable over Shirasaki in view of Chang as applied to claims 5 and 36 and in further view of Tamano. Applicants respectfully submit that the teachings of Chang and Tamano do not address the deficiencies of Shirasaki discussed above.

Claims rejected under 35 U.S.C. § 103 based on Shirasaki & Hebner

Claims 5 and 36 are rejected under 35 U.S.C.§103(a) as being unpatentable over Shirasaki in view of Hebner *et al.*, Appl. Phys. Lett., Vol. 73, No. 13, *pp. 1775-1777* ("Hebner"). Applicants respectfully submit that the teachings of Hebner do not address the deficiencies of Shirasaki discussed above.

Claims rejected under 35 U.S.C. § 103 based on Shirasaki, Hebner, and Tamano

Claim 8 is rejected under 35 U.S.C.§103(a) as being unpatentable over Shirasaki in view of Hebner as applied to claims 5 and 36 and in further view of Tamano. Applicants respectfully submit that the teachings of Hebner and Tamano do not address the deficiencies of Shirasaki discussed above.

Allowed claims

Applicants thank the examiner for indicating that claims 15-21 and 23-27 are allowed.

New claims

In addition to claims 42 and 44 (discussed above), Applicants add claim 43, which depends from claim 6 and describes the luminescence spectra of the dyed organic host material. Consideration on the merits is requested.

Conclusion

Applicants authorize the Commissioner to charge any fees determined to be due under 37 C.F.R. § 1.16 or § 1.17 or credit any overpayment to Deposit Account No. 11-0600.

The Examiner is invited to contact the undersigned at (202) 220-4209 to discuss any matter concerning this application.

Respectfully submitted,
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